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10/812,175	03/29/2004	Kenneth Kannappan	01-7131	3353

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EXAMINER	
GODBOLD, DOUGLAS	
ART UNIT	PAPER NUMBER
2626	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/812,175	KANNAPPAN, KENNETH	
	Examiner	Art Unit	
	DOUGLAS C. GODBOLD	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20080121*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to correspondence filed January 14, 2008 in reference to application 10/812,175. Claims 1-26 are pending in the application and have been examined. The Examiner of record has changed in this application.

Information Disclosure Statement

2. The Information Disclosure Statement filed January 21, 2008 has been accepted and considered in this office action.

Response to Amendment

3. The amendment filed January 14, 2008 has been accepted and considered in this office action. Claims 1, 7-12, 17-20, and 24-26 have been amended. The objections to the claims for informalities have been withdrawn.

Response to Arguments

4. Applicant's arguments filed January 14, 2008 have been fully considered but they are not persuasive.

5. With regards to applicant's arguments, see Remarks pages 7 and 8, that Fujisaki does not teach "the tone generator directly transmits the generated tones to simulate dialing," the examiner respectfully disagrees. As the applicant correctly points out, the tones generated by Fujisaki are transmitted to the user as a conformation that the

number was recognized. However Fujisaki also states that dialing circuit 7 also contains a tone generating circuit for dialing numbers (similar to tone generating circuit 4); column 3 lines 28-32. The dialing circuit 7 is directly connected to the output of the decision circuit 26 of the recognition system, and dials in response to recognition, column 3 lines 23-27. Therefore tones are generated by the dialing circuit 7 for actual dialing, and the tones generated by tone generating circuit 4 are for user conformation. In effect, simulated dialing tones are transmitted directly to the user. Therefore Fujisaki teaches "the tone generator directly transmits the generated tones to simulate dialing" as the tones are transmitted to the user for feedback.

Claim Rejections - 35 USC § 102

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1, 2, 4-13, and 15-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujisaki, Patent No.: US 4,853,953 ("FUJISAKI").

8. Regarding claim 1, FUJISAKI teaches a headset system, comprising: a headset having a headset microphone ("a handset 1 having a receiver 11 and a microphone 12", column 2, lines 20-21);

a speech recognition engine ("speech recognizer 2", column 2, lines 21-22) that receives audio signals from the headset microphone interprets the audio signals

received via the headset microphone ("speech recognizer 2 comprises a speech analyzer 21 which analyzes characteristic parameters of input utterances supplied from the microphone", column 2, lines 30-33) when activated ("couple the output of the analyzer 21 to a pattern matching circuit 23", column 2, lines 52-53), and interprets audio signals representing at least one of digits, letters, and numbers ("dialing number 'one' is spoken into the microphone 12", column 3, lines 33-34); and

an in-band dual tone multi-frequency tone generator ("dialing circuit 7 of either impulse of multi-frequency type", column 2, lines 23-24) in communication with the speech recognition engine that generates in-band DTMF tones representing the interpreted at least one of digits, letters, and numbers ("if a dialing number 'one' is spoken into the microphone 12, tone signals at 697 Hz and 1209 Hz are mixed together", column 3, lines 33-35), the tone generator directly transmits the generated tones to simulate dialing (output of tone generator 4 is transmitted to user via receiver 11 to simulate the dialed number for user conformation; column 4 lines 14-27).

9. Regarding claim 2, FUJISAKI further teaches a DTMF activation button ("manually controlled switch 22", column 2, line 51) in communication with the speech recognition engine for activating the speech recognition engine ("which is in the up position when a call is placed to couple the output of the analyzer 21 to a pattern matching circuit 23", column 2, lines 51-53).

10. Regarding claim 4, FUJISAKI further teaches a headset base unit ("handset 1", column 2, line 20) containing the in-band DTMF tone generator ("dialing circuit 7", see FIG. 1, column 2, line 23) and the speech recognition engine ("speech recognizer 2", see FIG. 1, column 2, lines 21-22).

11. Regarding claim 5, FUJISAKI further teaches that the headset ("handset 1", column 2, line 20) further includes the in-band DTMF tone generator ("dialing circuit 7", see FIG. 1, column 2, line 23) and the speech recognition engine ("speech recognizer 2", see FIG. 1, column 2, lines 21-22).

12. Regarding claim 6, FUJISAKI further teaches a voice synthesizer in communication with the speech recognition engine ("output of decision circuit 26 is further applied to a speech synthesizer 5", column 3, line 46).

13. Regarding claim 7, FUJISAKI further teaches a headset speaker ("receiver 11", column 2, line 21) in communication with the voice synthesizer, the speech recognition engine confirms accuracy of the interpreted audio signals via the speech recognition engine and the headset speaker ("outputs of the tone generator 4 and speech synthesizer 5 are selectively coupled though a switch 6 to receiver 11 to allow the user to confirm that his or her utterances are correctly interpreted by the speech recognizer 2", column 3, lines 48-52).

14. Regarding claim 8, FUJISAKI further teaches that the in-band DTMF tone generator generates in-band DTMF tones with a direct correspondence to the interpreted audio signals ("if a dialing number 'one' is spoken into the microphone 12, tone signals at 697 Hz and 1209 Hz are mixed together", column 3, lines 33-35).

15. Regarding claim 9, FUJISAKI further teaches that the speech recognition engine processes audio signals for a plurality of the at least one of digits, letters, and numbers and the in-band DTMF tone generator is configured to generate a plurality of in-band DTMF tones in response thereto (see column 3, lines 33-37, more than one number is entered and converted to a DTMF tone).

16. Regarding claim 10, FUJISAKI further teaches that the speech recognition engine processes audio signals for the at least one of a digit, letter, and number individually, and the in-band DTMF tone generator generates an in-band DTMF tone in response thereto ("if a dialing number 'one' is spoken into the microphone 12, tone signals at 697 Hz and 1209 Hz are mixed together", column 3, lines 33-35)

17. Regarding claim 11, FUJISAKI further teaches that the speech recognition engine interprets a predefined set of commands and/or user responses ("command signals such as 'send-to-line', 'clear' and 'verify'", column 3, lines 37-39)

18. Regarding claim 12, FUJISAKI teaches a method for navigating through a dual tone multi-frequency controlled system, comprising:

activating ("couple the output of the analyzer 21 to a pattern matching circuit 23", column 2, lines 52-53) a speech recognition engine ("speech recognizer 2", column 2, lines 21-22);

interpreting speech received via a microphone from a user by the speech recognition engine ("speech recognizer 2 comprises a speech analyzer 21 which analyzes characteristic parameters of input utterances supplied from the microphone", column 2, lines 30-33), the speech recognition engine interprets the speech representing at least one of digits, letters, and numbers ("dialing number 'one' is spoken into the microphone 12", column 3, lines 33-34); and

generating and transmitting in-band DTMF tones representing the interpreted speech ("if a dialing number 'one' is spoken into the microphone 12, tone signals at 697 Hz and 1209 Hz are mixed together", column 3, lines 33-35) by an in-band DTMF tone generator ("dialing circuit 7 of either impulse of multi-frequency type", column 2, lines 23- 24) in communication with the speech recognition engine (see FIG 1) the tone generator directly transmits the generated tones to simulate dialing (output of tone generator 4 is transmitted to user via receiver 11 to simulate the dialed number for user conformation; column 4 lines 14-27).

19. Regarding claim 13, FUJISAKI further teaches that activating the speech recognition engine is via a DTMF activation button ("manually controlled switch 22",

column 2, line 51) in communication with the speech recognition engine ("which is in the up position when a call is placed to couple the output of the analyzer 21 to a pattern matching circuit 23", column 2, .lines 51-53).

20. Regarding claim 15, FUJISAKI further teaches, prior to the generating and transmitting, confirming accuracy of the speech interpreted by the speech recognition engine by generating the interpreted speech via a voice synthesizer ("outputs of the tone generator 4 and speech synthesizer 5 are selectively coupled though a switch 6 to receiver 11 to allow the user to confirm that his or her utterances are correctly interpreted by the speech recognizer 2", column 3, lines 48-52).

21. Regarding claim 16, FUJISAKI further teaches that the in-band DTMF tone is direct translation of the interpreted speech ("if a dialing number 'one' is spoken into the microphone 12, tone signals at 697 Hz and 1209 Hz are mixed together", column 3, lines 33-35).

22. Regarding claim 17, FUJISAKI further teaches that the speech recognition engine processes speech for a plurality of the at least one of digits, letters, and numbers and the in-band DTMF tone generator generates a plurality of in-band DTMF tones in response thereto (see column 3, lines 33-37, more than one number is entered and converted to a DTMF tone).

23. Regarding claim 18, FUJISAKI further teaches that the speech recognition engine processes speech for the at least one of a digit, letter, and number individually, and the in-band DTMF tone generator generates an in-band DTMF tone in response thereto ("if a dialing number 'one' is spoken into the microphone 12, tone signals at 697 Hz and 1209 Hz are mixed together", column 3, lines 33-35).

24. Regarding claim 19, FUJISAKI further teaches that speech recognition engine interprets a predefined set of commands and/or user responses ("command signals such as 'send-to-line', 'clear' and 'verify'", column 3, lines 37-39).

25. Regarding claim 20, FUJISAKI teaches a method, comprising:

connecting to a DTMF-controlled system ("dialing circuit 7 of either impulse of multi-frequency type", column 2, lines 23-24), in which navigation through the DTMF-controlled system is via transmission of DTMF tones thereto ("generate control signals for off hook and other control functions and dialing signals", column 2, lines 29-30);

interpreting speech by a speech recognition engine receives speech from a user ("speech recognizer 2 comprises a speech analyzer 21 which analyzes characteristic parameters of input utterances supplied from the microphone", column 2, lines 30-33); and

generating and transmitting in-band DTMF tone to the DTMF-controlled system, the in-band DTMF tones being a translation of the interpreted speech selected from at least one of digits, letters, and numbers ("if a dialing number 'one' is spoken into the

microphone 12, tone signals at 697 Hz and 1209 Hz are mixed together", column 3, lines 33-35) the tone generator directly transmits the generated tones to simulate dialing (output of tone generator 4 is transmitted to user via receiver 11 to simulate the dialed number for user conformation; column 4 lines 14-27).

26. Regarding claim 21, FUJISAKI further, after the connecting, activating the speech recognition engine ("couple the output of the analyzer 21 to a pattern matching circuit 23", column 2, lines 52-53).

27. Regarding claim 22, FUJISAKI further teaches prior to the generating and transmitting, confirming accuracy of the speech interpreted by the speech recognition engine by generating the interpreted speech via a voice synthesizer ("outputs of the tone generator 4 and speech synthesizer 5 are selectively coupled though a switch 6 to receiver 11 to allow the user to confirm that his or her utterances are correctly interpreted by the speech recognizer 2", column 3, lines 48-52).

28. Regarding claim 23, FUJISAKI further teaches that the in-band DTMF tone is a direct translation of the interpreted speech ("if a dialing number 'one' is spoken into the microphone 12, tone signals at 697 Hz and 1209 Hz are mixed together", column 3, lines 33-35).

29. Regarding claim 24, FUJISAKI further teaches that the speech recognition engine processes speech for a plurality of the at least one of digits, letters, and numbers and the in-band DTMF tone generator is configured to generate a plurality of in-band DTMF tones in response thereto (see column 3, lines 33-37, more than one number is entered and converted to a DTMF tone).

30. Regarding claim 25, FUJISAKI further teaches that the speech recognition engine processes speech for the at least one of a digit, letter, and number individually, and the in-band DTMF tone generator generates an in-band DTMF tone in response thereto ("if a dialing number 'one' is spoken into the microphone 12, tone signals at 697 Hz and 1209 Hz are mixed together", column 3, lines 33-35).

31. Regarding claim 26, FUJISAKI further teaches that the speech recognition engine interprets a predefined set of commands and/or user responses ("command signals such as 'send-to-line', 'clear' and 'verify'", column 3, lines 37-39).

Claim Rejections - 35 USC § 103

32. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

33. Claims 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujisaki, Patent No.: US 4,853,953 ("FUJISAKI"), in view of Borcherding, Patent No.: US 5,165,095 ("BORCHERDING").

34. Regarding claim 3, FUJISAKI teaches all the claimed limitations of claim 1.

However, FUJISAKI does not disclose that the speech recognition engine is activated by a voice command.

In the same field of voice controlled dialing, BORCHERDING teaches a speech recognition engine that is activated by a voice command ("caller speaks a directive consisting of a dial command", BORCHERDING, column 2, lines 52-53).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the dial command of BORCHERDING to activate the speech recognizer of FUJISAKI so that the "user need not use his or her hands" (BORCHERDING, column 1, lines 46-47).

35. Regarding claim 14, FUJISAKI teaches all the claimed limitations of claim 12.

However, FUJISAKI does not disclose that activating the speech recognition engine is via voice command from the user.

In the same field of voice controlled dialing, BORCHERDING activating a speech recognition engine via voice command from the user ("caller speaks a directive consisting of a dial command", BORCHERDING, column 2, lines 52-53).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the dial command of BORCHERDING to activate the speech recognizer of FUJISAKI so that the "user need not use his or her hands" (BORCHERDING, column 1, lines 46-47).

Conclusion

36. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOUGLAS C. GODBOLD whose telephone number is (571)270-1451. The examiner can normally be reached on Monday-Thursday 7:00am-4:30pm Friday 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DCG
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